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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,096	03/26/2001	Stepan Sokolov	SUN1P816/P5614	2837

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EXAMINER

SHAH, NILESH R

ART UNIT PAPER NUMBER

2127

DATE MAILED: 06/04/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/818,096

Applicant(s)

SOKOLOV ET AL.

Examiner

Nilesh R Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/2/01, 5/9/02, 7/12.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are presented for examination.
2. The cross reference related to the application cited in the specification must be updated (i.e. updated the relevant status, with PTO serial numbers or patent numbers where appropriate, on page 8, lines 4-5. The entire specification should be so revised).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
4. Claim 1-7, 10-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Crelier (6,151,703).
5. As per claim 1, Crelier teaches a method of loading a class file into a virtual machine (Fig. 2a element 220, fig. 6 element 601, col. 5 lines 19 – 27), said class file being associated with an object-oriented class (col. 3 lines 43-55), and said virtual machine

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operating in an object-oriented computing system (col. 3 lines 43-55, col. 2 lines 58-67), said method comprising:

determining whether one or more components of said class to be loaded into said virtual machine (col. 6 lines 19-35, col. 14 lines 4-10, col. 16 lines 2-6, col. 17, lines 45-57); and loading said one or more components of said class into said virtual machine when said determining determines that said one or more components of said class to be loaded into said virtual machine (col. 6 lines 19-35, col. 14 lines 4-10, col. 16 lines 2-6, col. 17, lines 45-57). Crelier does not specifically teach the use of marking classes to be loaded.

Crelier does teach the use of loading classes in a predetermined manner (col. 6 lines 19-35, col. 14 lines 4-10, col. 16 lines 2-6, col. 17, lines 45-57). The loading is based on which classes have been called, which class is next to be loaded or Crelier "just-in time" method of loading classes. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the marking of classes to be loaded along with the Crelier's predetermined method of loading classes into the virtual machine because the user would be able to identify and located which classes are to be loaded by the marking.

6. As per claim 2, Crelier teaches a method wherein said method further comprises:

not loading one or more components of said class when said determining determines that said one or more components of said class have not been marked to be loaded into said virtual machine (col. 6 lines 19-35, col. 14 lines 4-10, col. 16 lines 2-6, col. 17, lines 45-57).

7. As per claim 3, Crelier teaches a method wherein said method further comprises:
marking one or more components of said class for loading into said virtual machine (col. 16 lines 2-6, col. 17, lines 45-57).
8. As per claim 4, Crelier teaches a method wherein said marking is clone by defining an attribute associated with said object-oriented class (col. 3 lines 42-55, col. 14 lines 5-10);and
wherein said determining operates to determine whether one or more components of said class have been marked to be loaded into said virtual machine based on said attribute associated with said object-oriented class(col. 16 lines 2-6, col. 17, lines 45-57).
9. As per claim 5, Crelier teaches a method wherein said method further comprises:
providing an attribute portion in said class file that describes said attribute associated with said object-oriented class (col. 3 lines 43-55, col. 2 lines 58-67).
10. As per claim 6, Crelier teaches a method wherein said attribute portion in said class file is implemented as an attribute table (col. 8 lines 16-24).
11. As per claim 7, Crelier teaches a method wherein said attribute table includes offsets of one or more components of the class file with respect to said class file (col. 9 lines 55-62, col. 3 lines 43-55, col. 2 lines 58-67).

12. Claim 10 is rejected based on the same rejection as claim 1 above.

13. Claims 11-12 are rejected based on the same rejection as claims 6-7 above.

14. As per claim 13, Crelier teaches a computer readable media including computer readable code representing a class file suitable for loading into a virtual machine (col. 6 lines 19-27), said class file being associated with an object-oriented class (col. 3 lines 43-55) and said virtual machine operating in an object-oriented computing system (col. 3 lines 43-55, col. 2 lines 58-67),

wherein said computer readable code representing said class file comprises computer readable code representing a load attribute portion of said class file (col. 5 lines 41-50, col. 6 lines 19-28); and

wherein said attribute portion represents information about one or more components of said class that have been marked to be loaded into said virtual machine (col. 6 lines 19-35, col. 14 lines 4-10, col. 16 lines 2-6, col. 17, lines 45-57).

15. Claim 14 is rejected based on the same rejection as claim 6 above.

16. Claim 15 is rejected based on the same rejection as claim 7 above.

17. As per claim 16, Crelier teaches a method of loading a class file into a virtual machine, said class file being associated with an object-oriented class, and said virtual machine operating in an object-oriented computing system, said method comprising:
providing a load attribute for said class file (col. 5 lines 41-50, col. 6 lines 19-28); and
associating one or more components of said class file with said load attribute to indicate that said one or more components of said class file are to be loaded (col. 6 lines 19-26, col. 8 lines 16-23, col. 8 lines 62-67); and
loading only said one or more components of said class file into said virtual machine(col. 6 lines 19-26, col. 8 lines 16-23, col. 8 lines 62-67).
18. As per claim 17, Crelier teaches a method wherein said providing of said load attribute operates to provide an attribute table in said class file (col. 8 lines 16-24).
19. Claim 18 is rejected based on the same rejection as claim 7 above.
20. As per claim 19, Crelier teaches a method, wherein said method further comprises:
determining whether at least one component of said class file has been associated with said load attribute (col. 6 lines 28-35).
21. As per claim 20, Crelier teaches a method, wherein said determining operates to search said attribute table for an offset associated with said at least one component of said class file (col. 9 lines 55-62, col. 3 lines 43-55, col. 2 lines 58-67).

22. Claims 8,9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crelier (6,151,703) in view of Ellacott (5,899,997).

23. As per claim 8, Crelier teaches a method, wherein said determining whether one or more components of said class have been marked to be loaded into said virtual machine (Fig. 6, col. 5 lines 19 – 27).

Crelier does not specifically teach the use of reading sequential class files.

Ellacott teaches initiating a first sequential read of said class file; and determining whether an attribute table has been found for said class file (col.9 line 65- col. 10 line 24). It would have been obvious to one skilled in the art at the time of the invention was made to combine the teachings of Crelier and Ellacott because Ellacott's method of reading the class files in sequential order would improve Crelier's system by providing a fair and efficient method of reading class files.

24. As per claim 9, Ellacott teaches a method, wherein said method further comprises: initiating a second sequential read of said class file (col.9 line 65- col. 10 line 24); and determining whether a component has been encountered; and determining whether a component has a corresponding entry in said attribute table of said class file when said component has been encountered (col. 9 lines 59-65);

25. As per claim 21, Ellacott teaches a method, wherein said determining comprises:
- initiating a first sequential read of said class file to determine whether said class file has an attribute table(col.9 line 65- col. 10 line 24); and
- reading said attribute table when said class file has an attribute table(col.9 line 59- col. 10 line 24); and
- initiating a second read of said class file; and determining whether at least one component of said class file has been associated with said load attribution (col. 9 lines 59 – 65).

Conclusion


26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Conner et al (5,418,964) teaches the use of linking different classes (fig 5). Sakurai et al (4,910,731) teaches the use of loading classes in a specific order (col. 7 lines 1-45).
27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nilesh R Shah whose telephone number is 703-305-8105. The examiner can normally be reached on Monday-Friday 8am-4pm.
- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NS

May 24, 2004


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